SCOPE OF WORK

2004 SOIL SAMPLING FOR TREMOLITE/ACTINOLITE IMPACTS – WEST END

BNSF LIBBY RAILYARD HYDRATED BIOTITE REMOVAL

LIBBY, MONTANA

EMR PROJECT 5539-004

Prepared for:

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ENVIRONMENTAL MANAGEMENT RESOURCES

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JUNE 2004

Scope of Work – 2004 Soil Sampling for Tremolite/Actinolite Impacts

Libby Tremolite/Actinolite Soil Remediation – West End
The Burlington Northern and Santa Fe Railway Company
Libby, Montana
EMR Project Number: 5539-004
Revision Date: 6/21/04

PREPARATION FOR SOIL SAMPLING

Conduct BNSF and Montana Utility Locates if applicable
Contact appropriate BNSF personnel for track protection
Coordinate sample submittal with the laboratory
Review Health and Safety Plan
Coordinate schedule with USEPA representative

SOIL SAMPLING FOR TREMOLITE/ACTINOLITE IMPACTS

The purpose of this sampling event is to delineate the north west boundary of the remedial action area.

FIELD ACTIVITIES

A tailgate safety meeting and hazard analysis will be conducted daily; personal protective equipment shall include, but not be limited to: hard hat, reflective vest, safety glasses, safety toed boots, gloves, respirators, disposable boot covers, and other protective clothing outlined in the Health and Safety Plan. If a USEPA representative is on site, coordinate split sampling plan and review Health and Safety rules.

The soils will be kept wet using potable water to eliminate any visible dust emissions. Soil tailings removed from the hole will be used as backfill. Samples will be placed in new quart sized zip-top plastic bags; the bag will be labeled using a permanent marking pen with a unique sample ID as identified below with sampling time and date; the bag should be approximately 1/3 full. The samples will be double bagged.

The sampling crew will don a new pair of disposable gloves prior to handling equipment or soil for each sample. Soil samples will be collected with a clean tool. All sampling details will be recorded on the chain-of-custody and in the field book; all standard chain-of-custody procedures are to be followed. Samples will be placed in a clean container following collection. Each clean container will have a separate chain-of-custody; containers will be sealed with a custody seal prior to shipment or delivery to the laboratory. Samples will be relinquished to the laboratory for analysis. All composite samples will be submitted to the laboratory; discreet samples will be submitted but the chain-of-custody will be marked "Hold pending BNSF approval". The discreet samples will be analyzed if deemed appropriate by BNSF and EPA project managers.

Sampling equipment will be decontaminated between samples. Sampling and decontamination procedures were adapted from the Project Specific Standard Operation

Procedure for Soil Sample Collection prepared by CDM and documented as SOP No. CDM-LIBBY-05 Revision 1. Decontamination will follow these steps:

- Remove all gross contamination with plastic brush.
- Use Distilled water and a plastic brush to wash each piece of equipment.
- Remove excess water present on the equipment by shaking.
- Use a paper towel to dry each piece of equipment.
- Wrap dried equipment in aluminum foil if equipment is not to be used immediately.

Prior to use in the field, and once a week while sampling, all soil sampling equipment will be cleaned using Alconox or equivalent detergent and DI water. Sampling equipment may include a trowel, bulb planter, shovel, hand auger, stainless steel mixing bowl, plastic buckets, and/or a post hole digger.

If visible hydrated biotite is detected by the sampling crew during sampling activities it will be noted in the field book and on the map.

Delineation of Potential Impacts to the West of the BNSF Libby Yard

Sampling areas will be linear. North of the tracks the area will extend from the end of the north edge of the railroad tie on track 3 to the northern property boundary (approximately 25 feet). Samples will also be collected along tracks 1, 2, and 3; samples should be collected at a variety of locations within the area including some between the rails and some in the area next to the track outside of the ties and rails; sample locations will be at the discretion of the field personnel. Along tracks, the areas will extend from the midway point of the track south of the track being sampled to the midway point to the track north. They will collect samples at 50 foot intervals in each sample area; portion of four consecutive samples will be composited (i.e. one composite sample per 200 feet of sample area or track length) and submitted for laboratory analysis. In the area north of track 3, two sample areas have been planned. The first begins 25 feet west of the location of sample 35004 (from the 2001 investigation conducted by EMR) and includes two discreet samples spaced 50 feet apart (the easterly one located approximately 50 feet west of 35004). The second area will include four discreet samples just as those described for track 1, 2, and 3. These two areas are depicted on the June 2004 Investigation Sample Locations Map attached.

These sample results will be utilized to provide clearance sampling data or to determine the extent of the remedial area depending upon the results. Sampling area shall extend from the switch at the west end of the yard, where Tracks 2 and 3 split, to the east for a distance of approximately 350 feet or until eight samples are collected along each track. Eight discreet samples will be combined into two composite samples along each track. Additional samples may be collected farther west at the discretion of the field personnel.

This sample plan will generate eight composite samples from the west end of the site. A total of 30 discreet samples will be collected.

If the area to be sampled is covered by an impervious surface such as asphalt, the EMR sampler will choose the nearest accessible location within that grid and will collect the sample and document the new sample location. No samples will be collected beneath impervious surfaces.

SAMPLE CREW

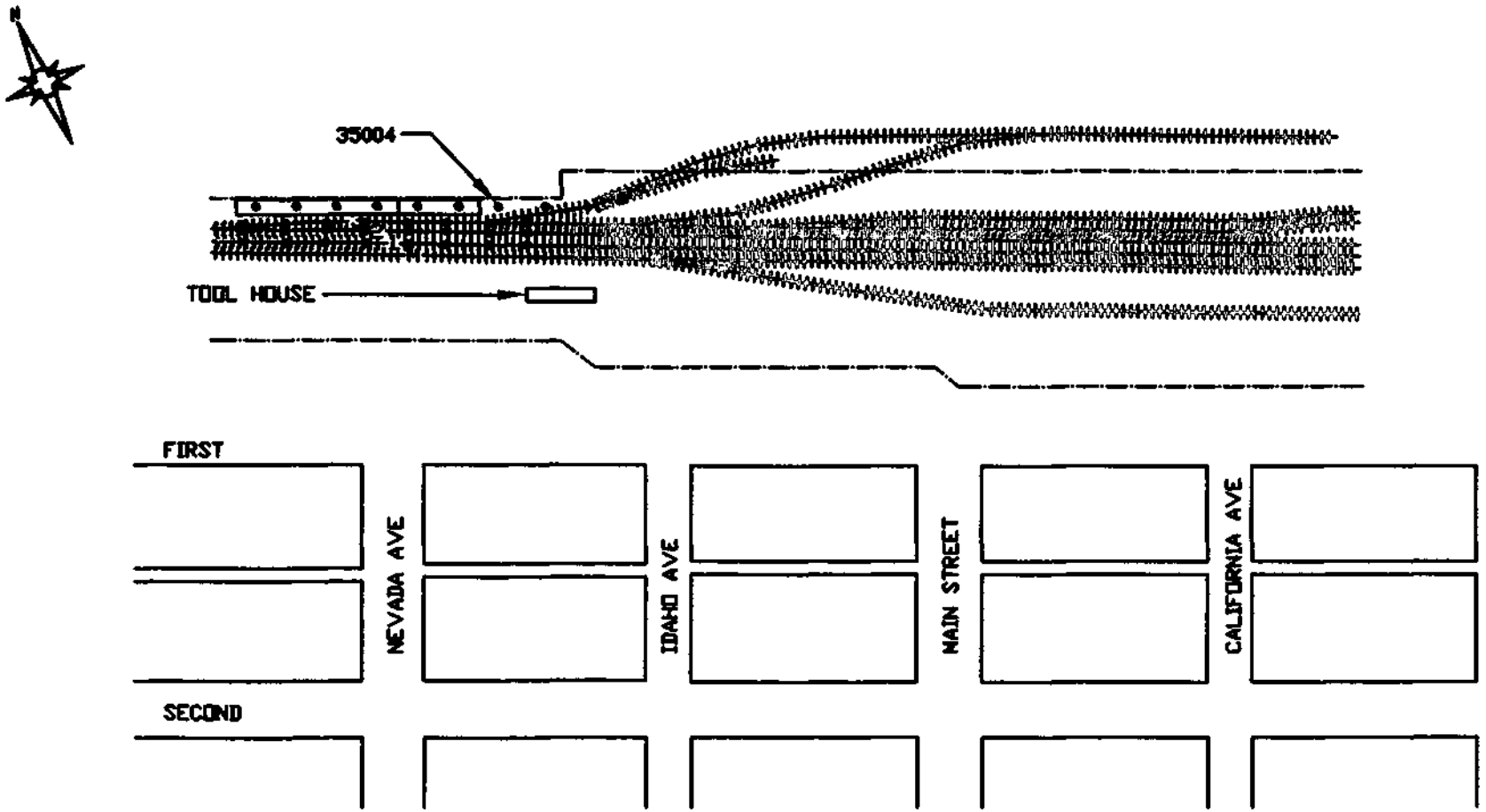
The crew will consist of one sampler. The sampler shall be monitored for potential asbestos exposure via the use of a personal pump and air cassette during all sampling activities. Personal samples will be analyzed by phase contrast microscopy (pcm). Air sampling procedures regarding personal sampling and limits are discussed in the Health and Safety Plan.

The sampler will wet soils prior to sample collection.

Soil sampling locations for each sample will be noted on a scaled map, a marker will be placed in the field, and global positioning system (gps) locations will be recorded in the field notes.

Soil samples will be submitted to an EPA approved laboratory for analysis by Polarized Light Microscopy (PLM) using Method 9002, Issue 2. Standard sample turnaround time will be noted on the chain-of-custody.

Upon receipt and evaluation of sample results, a Remedial Action Work Plan for the site will be prepared and submitted to the United States Environmental Protection Agency (USEPA) for approval in accordance with the Administrative Order on Consent.



LEGEND

- Property Boundary
- 2001 Sample Locations
- 2004 Sample Locations
- BNSF Railroad Tracks
- ROW Sample Area

The Burlington Northern Santa Fe Railway Company
Libby, Montana

June 2004 Investigation Sample Locations

DRAWN BY:	CAD	PROJECT NO.	5539-004
CHECKED BY:	TD	DATE:	6/15/04
REVISION NO.	1	SCALE:	AS NOTED

EMR INCORPORATED